This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. **(Original)** An isolated PEDF-R polynucleotide, wherein said polynucleotide is

(a) a polynucleotide that has the sequence of SEQ ID NO: 1, 2 or 4;

(b) a polynucleotide that hybridizes under stringent hybridization conditions to (a) and encodes a polypeptide having the sequence of SEQ ID NO: 3 or 5; or

(c) a polynucleotide that hybridizes under stringent hybridization conditions to (a) and encodes a polypeptide with at least 25 contiguous residues of the polypeptide of SEQ ID NO: 3 or 5; or

(d) a polynucleotide that hybridizes under stringent hybridization conditions to (a) and has at least 12 contiguous bases identical to or exactly complementary to SEQ ID NO: 1, 2, or 4,

wherein the polynucleotide encodes a polypeptide having PEDF-R activity.

2. **(Original)** An isolated PEDF-R polynucleotide, wherein said polynucleotide is

(a) a polynucleotide that has the sequence of SEQ ID NO: 12, 13, 15, or 16;

(b) a polynucleotide that hybridizes under stringent hybridization conditions to (a) and encodes a polypeptide having the sequence of SEQ ID NO: 14 or 17; or

(c) a polynucleotide that hybridizes under stringent hybridization conditions to (a) and encodes a polypeptide with at least 25 contiguous residues of the polypeptide of SEQ ID NO: 14 or 17; or

(d) a polynucleotide that hybridizes under stringent hybridization conditions to (a) and has at least 12 contiguous bases identical to or exactly complementary to SEQ ID NO: 12, 13, 15, or 16,

wherein the polynucleotide encodes a polypeptide having PEDF-R activity.

3. **(Original)** An isolated PEDF-R polynucleotide encoding a polypeptide comprising a sequence at least 60% identical to SEQ ID NO:3 and having PEDF-R activity.

4. **(Original)** An isolated PEDF-R polynucleotide encoding a polypeptide comprising a sequence at least 60% identical to SEQ ID NO:5 and having PEDF-R activity

5. **(Original)** The isolated PEDF-R polynucleotide of claim 1 encoding a polypeptide comprising the sequence of SEQ ID NO:3 or 5.

6. **(Original)** The PEDF-R polynucleotide of claim 1 encoding a polypeptide having a binding affinity of at least 10^4 M^{-1} for binding PEDF.

7. **(Original)** The PEDF-R polynucleotide of claim 1 comprising SEQ ID NO:1 or its complement.

8. **(Original)** The PEDF-R polynucleotide of claim 1 comprising SEQ ID NO:2 or its complement.

9. **(Original)** The PEDF-R polynucleotide of claim 1 comprising SEQ ID NO:4 or its complement.

10. **(Original)** A nucleic acid comprising the cDNA coding sequence of ATCC Deposit No. accession number BC017280.1, accession number XM_341960.1, or accession number AK031609.1.

11. **(Original)** A polypeptide comprising the amino acid sequence of ATCC Deposit No. accession number BAC27476.1, accession number XP_341961.1, or accession number AAH17280.1.

12. **(Original)** An isolated polynucleotide comprising a nucleotide sequence having at least 60% identity to SEQ ID NO:1, 2 or 4 or a complement thereof and having PEDF-R activity.

13. **(Original)** An isolated polypeptide comprising a nucleotides sequence that has at least 90% sequence identity to SEQ ID NO:3 or SEQ ID NO:5 and is immunologically

cross-reactive with SEQ ID NO:3 or SEQ ID NO:5 or shares a biological function with native PEDF-R.

14. **(Original)** A vector comprising the isolated PEDF-R polynucleotide of claim 1.

15. **(Original)** An expression vector comprising the PEDF-R polynucleotide of claim 1 operatively linked to a regulatory sequence that controls expression of the polynucleotide in a host cell.

16. **(Original)** The expression vector of claim 15 wherein the polynucleotide is operatively linked to the regulatory sequence in an antisense orientation.

17. **(Original)** The expression vector of claim 15 wherein the polynucleotide is operatively linked to the regulatory sequence in a sense orientation.

18. **(Original)** A host cell comprising the polynucleotide of claim 1, or progeny of the cell.

19. **(Original)** The host cell of claim 18 which is a eukaryote.

20. **(Original)** A host cell comprising the polynucleotide of claim 1 operatively linked with a regulatory sequence that controls expression of the polynucleotide in a host cell.

21. **(Original)** The host cell of claim 20 wherein the nucleic acid is operatively linked to the regulatory sequence in an antisense orientation.

22. **(Original)** The expression vector of claim 20 wherein the nucleic acid is operatively linked to the regulatory sequence in a sense orientation.

23. **(Original)** An isolated DNA that encodes a PEDF-R protein as shown in SEQ ID NO:3 or 5.

24. **(Original)** An antisense oligonucleotide complementary to a messenger RNA comprising SEQ ID NO:1, 2, or 4 and encoding PEDF-R, wherein the oligonucleotide inhibits the expression of PEDF-R.

25. **(Original)** The polynucleotide of claim 1 that is RNA.

26. **(Original)** A method of producing a polypeptide comprising:

(i) culturing the host cell of claim 18 under conditions such that the polypeptide is expressed; and

(ii) recovering the polypeptide from the cultured host cell of its cultured medium.

27. **(Original)** An isolated polypeptide encoded by a polynucleotide of claim 1(a) or (b).

28. **(Original)** The polypeptide of claim 27 that has the amino acid sequence of SEQ ID NO:3 or 5.

29. **(Original)** An isolated polypeptide having 60% sequence identity to the amino acid sequence of SEQ ID NO:5 and having PEDF-R activity

30. **(Original)** The polypeptide of claim 29 comprising SEQ ID NO:3.

31. **(Original)** The polypeptide of claim 29 comprising SEQ ID NO:5.

32. **(Original)** The isolated polypeptide of claim 27 that is cell-membrane associated.

33. **(Original)** The isolated polypeptide of claim 27 that is soluble.

34. **(Original)** The isolated polypeptide of claim 27 that is fused with a heterologous peptide.

35. **(Original)** An isolated antibody that specifically binds to a polypeptide having the amino acid sequence as shown in SEQ ID NO:3 or SEQ ID NO:5.

36. **(Original)** An isolated antibody composition that specifically binds to a polypeptide of claim 27.

37. **(Original)** The isolated antibody composition of claim 35 that is monoclonal.

38. **(Original)** The isolated antibody composition of claim 35 that is polyclonal.

39. **(Original)** The isolated antibody of claims 37 or 38 that is labeled.

40. **(Original)** The isolated antibody of claims 37 or 38 that is conjugated to a toxic or non-toxic moiety.

41. **(Original)** The isolated antibody composition of claims 37 or 38 that is a neutralizing antibody.

42. **(Original)** A hybridoma capable of secreting the antibody that binds to a polypeptide of claim 37.

43. **(Original)** A method for identifying a compound or agent that binds to a PEDF-R polypeptide comprising:

(i) contacting a PEDF receptor polypeptide of claim 27 with the compound or agent under conditions which allow binding of the compound to the PEDF-R polypeptide to form a complex and

(ii) detecting the presence of the complex.

44. **(Original)** A method of detecting a PEDF-R polypeptide in a sample, comprising:

(i) contacting the sample with an antibody of claim 37, and

(ii) determining whether a hybridization complex has been formed between the antibody and the PEDF-R polypeptide.

45. **(Original)** A method of detecting a PEDF-R polypeptide in a sample, comprising:

(i) contacting the sample with a polynucleotide of claim 1 or a polynucleotide that comprises a sequence of at least 12 nucleotides and is complementary to a contiguous sequence of the polynucleotide of section (a) of claim 1; and

(ii) determining whether a hydridization complex has been formed.

46. **(Original)** The method of claim 45, wherein said method is used to diagnose a disease or disorder of the nervous system.

47. **(Original)** The method of claim 45, wherein said method is used to diagnose a disease or disorder associated with angiogenesis.

48. **(Original)** The method of claim 45, wherein said method is used to diagnose an ocular disease or disorder.

49. **(Original)** A method of detecting a PEDF-R nucleotide in a sample, comprising:

(i) using a polynucleotide that comprises a sequence of at least 12 nucleotides and is complementary to a contiguous sequence of a polynucleotide of section (a) of claim 1, in an amplification process, and

(ii) determining whether a specific amplification product has been formed.

50. **(Original)** The method of claim 49, wherein said method is used to diagnose a disease or disorder of the nervous system.

51. **(Original)** The method of claim 49, wherein said method is used to diagnose a disease or disorder associated with angiogenesis.

52. **(Original)** The method of claim 49, wherein said method is used to diagnose an ocular disease or disorder.

53. **(Original)** A pharmaceutical composition comprising a polynucleotide of claim 1, or a polypeptide of claim 27 or an antibody of claim 35 and a pharmaceutically acceptable carrier.

54. **(Original)** A pharmaceutical composition comprising an antibody of claim 35.

55. **(Original)** A method of modulating PEDF activity, comprising

(i) modulating with the expression of a PEDF-R gene;

(ii) modulating the ability of a PEDF-R protein to bind to another cell; or

(iii) modulating the ability of a PEDF-R protein to bind to another protein.

56. **(Original)** A method of modulating PEDF activity in a subject, comprising administering to the subject a therapeutically effective amount of the pharmaceutical composition of claim 53.

57. **(Original)** The method of claim 56 wherein the PEDF activity is neurotrophic, neuronotrophic, gliastatic, anti-angiogenic, or adipostatic.

58. **(Original)** The method of claim 56 wherein the PEDF activity is the inhibition of ocular angiogenesis or neovascularizaton.

59. **(Original)** The method of claim 58 wherein the ocular angiogenesis is caused by ischemia.

60. **(Original)** The method of claim 56 wherein the PEDF activity is the inhibition of retinal cell degeneration.

61. **(Currently amended)** A method of treating a ~~neurological~~ disease or disorder in a subject comprising administering to the subject a therapeutically effective amount of the pharmaceutical composition of claim 53, wherein the disease or disorder is neurological or ocular.

62. **(Cancelled)**

63. **(Currently amended)** [[A]]The method of ~~treating~~ claim 61, wherein the disease or disorder is macular degeneration ~~in a subject comprising administering to the subject a therapeutically effective amount of the pharmaceutical composition of claim 53~~.